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10/712,348	11/14/2003	Seiji Katsuoka	2003_1648A	1190

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EXAMINER

EDWARDS, LAURA ESTELLE

ART UNIT

PAPER NUMBER

1734

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/712,348	Applicant(s) KATSUOKA ET AL.	
	Examiner Laura Edwards	Art Unit 1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-71 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-71 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: ____ | 6) <input type="checkbox"/> Other: ____ |

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claim 1, drawn to a first plating apparatus, classified in class 118, subclass 407.
- II. Claims 2-4 and 11-13, drawn to a second plating apparatus, classified in class 118, subclass 423.
- III. Claims 5 and 6, drawn to a third plating apparatus, classified in class 205, subclass 660.
- IV. Claims 7, 9, 10, 18, 19, 22, 23, 28, 29, and 33, drawn to a fourth closed lid type plating apparatus, classified in class 204, subclass 275.1.
- V. Claim 8, drawn to a fifth plating apparatus, classified in class 204, subclass 198.
- VI. Claims 14-17, drawn to a sixth plating apparatus, classified in class 204, subclass 237.
- VII. Claims 20, 21, 30-32, and 34, drawn to a seventh plating apparatus, classified in class 204, subclass 237.
- VIII. Claims 24-27, drawn to an eighth plating apparatus, classified in class 204, subclass 297.03.
- IX. Claim 35, drawn to a ninth plating apparatus, classified in class 204, subclass 269.
- X. Claim 36, drawn to a tenth plating apparatus, classified in class 204, subclass 240.
- XI. Claims 37-39, drawn to a cleaning method, classified in class 134, subclass 26.
- XII. Claims 40-42, drawn to a substrate cleaning apparatus, classified in class 134, subclass 137.
- XIII. Claim 43 and 44, drawn to a dip coating process, classified in class 427, subclass 430.1.

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- XIV. Claims 45-49, drawn to a dip processing apparatus, classified in class 118, subclass 400.
- XV. Claims 50-55 and 61-63, drawn to a tiltable substrate processing apparatus, classified in class 118, subclass 500.
- XVI. Claims 56-60, 64, and 65, drawn to a substrate tilting process without use of a tank, classified in class 427, subclass 331.
- XVII. Claims 66-70, drawn to a substrate holding device, classified in class 269, subclass 21.
- XVIII. Claim 71, drawn to a substrate attaching/detaching process, classified in class 414, subclass 800.

The inventions are distinct, each from the other because of the following reasons:

The first through tenth plating apparatus of Groups 1-10 are all deemed independent and distinct operating apparatus each requiring a structural combination in association with that which is conventional, the combination of a plating unit, cleaning unit, and/or substrate loading/unloading unit for a substrate.

Inventions XI and I-X are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the independent apparatus of Groups I-X can be used for a different method other than cleaning a substrate such as removing a layer or etching a substrate.

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Inventions XII and I-X are deemed independent and distinct inventions because the invention of Group XII is strictly to a cleaning system while the inventions of Groups I-X are to a plating/cleaning system combination. The apparatus of Group XII does not have to be used with a plating system or a substrate (i.e., flat or planar object), the apparatus can be used in combination to oxidize and/or purify a non-planar object.

Inventions XI and XII are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus can be used for a different process other than cleaning such as abrading or roughening the surface of a substrate via chemical reaction.

Inventions XIII and I-X are deemed unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions of Groups I-X are for plating systems while the invention of Group XIII is to a method for dip coating of a substrate with any type of liquid. The method of Group XIII does not have the intended function of plating but could be used for dip coating of confectionary products.

Inventions XIII and XI are deemed unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the

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invention of Group XI is to a cleaning method that has a different function from the dip coating of the substrate with a liquid as in the method of Group XIII.

Inventions XIII and XII are deemed unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XII is to a cleaning apparatus that has a different function from the substrate dip coating method of Group XIII.

Inventions XIV and I-X are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions of Groups I-X are for plating systems while the invention of Group XIV is to a liquid dip processing apparatus. The invention of Group XIV does not have to be used for cleaning and/or plating and can be used for painting auto parts.

Inventions XIV and XI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XI is to a cleaning method while the invention of Group XIV is to a liquid dip processing apparatus.

Inventions XIV and XII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the

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invention of Group XII is to a cleaning apparatus while the invention of Group XIV is to a liquid dip processing apparatus.

Inventions XIII and XIV are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used for a different process other than coating a substrate but decontaminating a fluidized bed.

Inventions XV and I-X are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions of Groups I-X are for plating systems while the invention of Group XV is to a titlable substrate processing apparatus.

Inventions XV and XI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XI is to a cleaning method while the invention of Group XV is to a tiltable substrate processing apparatus.

Inventions XV and XII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the

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invention of Group XII is to a cleaning apparatus while the invention of Group XV is to a tiltable substrate processing apparatus.

Inventions XV and XIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XIII is to a dip coating process while the invention of Group XV is to a tiltable substrate processing apparatus.

Inventions XV and XIV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XIV is to a dip coating apparatus while the invention of Group XV is to a tiltable substrate processing apparatus.

Inventions XVI and I-X are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions of Groups I-X are for plating systems while the invention of Group XVI is to a substrate tilting method.

Inventions XVI and XI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XI is to a cleaning method while the invention of Group XVI is to a substrate tilting method.

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Inventions XVI and XII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XII is to a cleaning apparatus while the invention of Group XVI is to a substrate tilting method.

Inventions XVI and XIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XIII is to a dip coating process while the invention of Group XVI is to a substrate tilting method.

Inventions XVI and XIV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XIV is to a dip coating apparatus while the invention of Group XVI is to a substrate tilting method.

Inventions XVI and XV are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used for a different process other than for treatment with liquid but treatment with a pressurized reactive gas.

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Inventions XVII and I-X are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions of Groups I-X are for plating systems while the invention of Group XVII is to a vacuum type substrate holding device.

Inventions XVII and XI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XI is to a cleaning method while the invention of Group XVII is to a vacuum type substrate holding device.

Inventions XVII and XII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XII is to a cleaning apparatus while the invention of Group XVII is to a vacuum type substrate holding device.

Inventions XVII and XIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XIII is to a dip coating process while the invention of Group XVII is to a vacuum type substrate holding device.

Inventions XVII and XIV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation,

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different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of Group XIV is to a dip coating apparatus while the invention of Group XVII is to a vacuum type substrate holding device.

Inventions XVII and XV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XV is to a tiltable substrate processing apparatus while the invention of Group XVII is to a vacuum type substrate holding device.

Inventions XVII and XVI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of Group XVI is to a substrate tilting process while the invention of Group XVII is to a vacuum type substrate holding device.

Inventions XVIII and I-X are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions of Groups I-X are for plating systems while the invention of Group XVIII is to a substrate attaching/detaching process.

Inventions XVIII and XI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the

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invention of Group XI is to a cleaning method while the invention of Group XVIII is to a substrate attaching/detaching process.

Inventions XVIII and XII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XII is to a cleaning apparatus while the invention of Group XVIII is to a substrate attaching/detaching process.

Inventions XVIII and XIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XIII is to a dip coating process while the invention of Group XVIII is to a substrate attaching/detaching process.

Inventions XVIII and XIV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XIV is to a dip coating apparatus while the invention of Group XVIII is to a substrate attaching/detaching process.

Inventions XVIII and XV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XV is to a tiltable substrate processing apparatus while the invention of Group XVIII is to a substrate attaching/detaching process.

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Inventions XVIII and XVI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of Group XVI is to a substrate tilting process while the invention of Group XVIII is to a substrate attaching/detaching process.

Inventions XVIII and XVII are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used for a different process of than with liquid such as manipulating the substrate in a reactive gas type processing system for treatment of the front and rear of a substrate.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

A telephone call was made to Michael Huppert on 10/25/04 to request an oral election to the above restriction requirement and Mr. Huppert requested a written restriction requirement such that a telephonic election did not result.

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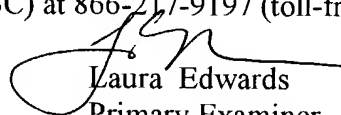
Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura Edwards whose telephone number is (571) 272-1227. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Laura Edwards
Primary Examiner
Art Unit 1734

Le
October 28, 2004